

REMARKS

Claim 6 has been amended, 1-5 and 8-12 had been cancelled, no new claim has been added. Thus, claims 6, 7, and 13-21 are pending in the application. For at least the following reasons, it is respectfully submitted that this application is in condition for allowance.

In the Action, Claims 6 and 7 are rejected under 35 U.S.C.102 (e) as being anticipated by Suzuki (USP 5, 925,445). **Applicant disagrees because of the following reasons.** The invention defined in independent claim 6 relates to a circuit board for a semiconductor device, and the characteristics of the invention claimed in claims 6 are,

- (a) a plurality of pads being disposed only in a first line, which is in parallel to one of the sides of the circuit board;
- (b) a plurality of terminals being disposed only in a second line, which is in parallel to said first line of said pads,
- (c) whereby no pads and terminals are formed in line along other sides of the circuit board, and the pads in the first line and the terminals in the second line are always in parallel;
- (d) a barrier f including a plurality of line-shaped trench extending along said terminals, and said trenches being formed in said resist film,
- (e) wherein the entire surface of the circuit board in each trench is exposed in each trench

Suzuki does not disclose any of these characteristics described above. As to the characteristic (a), as the examiner asserts, Suzuki discloses that a plurality

of pads are disposed along all sides of the circuit board while the invention claims that a plurality of pads are disposed along one side only of the circuit board.

As to the characteristic (b), as the examiner asserts, Suzuki discloses that a plurality of terminals are disposed along all sides of the circuit board while the invention claims that a plurality of pads are disposed along the one side only of the circuit board.

According to these differences between the Suzuki and invention, as described in characteristic (c) above, while no pads and terminals are formed in line along other sides of the circuit board, and the pads in the first line and the terminals in the second line are always in parallel in the invention, the pads and the terminal are formed along all side of the circuit board in Suzuki. Thus, the terminals and the pads are not always disposed in parallel in Suzuki. These differences come from the connectional difference between them. As described in the specification, this invention was made to avoid unnecessary connection by a solder ball in the solder flow process. Under the solder flow process, the circuit board is dipped in melted solder from one side thereof. Thus, to avoid unnecessary connection by a solder ball, the terminals and pads are always disposed in parallel, and are formed along only one of the sides of the circuit board as described above.

As to the characteristic (d), Suzuki does not show any barriers. Suzuki shows the trenches, but these trenches are not functioned as barriers. These trenches are acts as contact holes.

As to the characteristic (e), Suzuki does not disclose that each of the bottoms of the trenches is exposed. At least, since the pads 6 exist in the trench

as shown in Fig. 3, the surface of the circuit board is not exposed in the area where the pads 6 are formed.

Accordingly, Suzuki does not disclose or suggest the claimed circuit board having the characteristics (a) through (e) described above, claim 6 clearly is not anticipated by Suzuki, and are deemed to be clearly patentable over Suzuki, and the rejection of claim 6 accordingly should be withdrawn. Further, claim 7 depends from claim 6. The rejection of claim 7 should also be withdrawn.

Claims 13-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki as applied to claim 6 above. Claims 13-21 depend from claim 6 directly or indirectly. As described above, since Suzuki does not disclose above-described characteristics (a) through (e), and the claim 6 would not be obvious over the Suzuki, claims 13-21 would not also obvious over Suzuki. Thus, the rejection applied to claims 13-31 should be withdrawn.

In view of the foregoing, the application is deemed to be in condition for allowance and such is earnestly solicited. Should any fee be needed, please charge it to our Account No. 50-0945 and notify us accordingly.

Respectfully submitted,



Junichi Mimura (Reg. No. 40,351)
Oki America, Inc.
1101 14th Street N.W., Suite 555
Washington, D.C. 20005
Telephone: (202) 452-6190
Telefax: (202) 452-6148
Customer No.: 26071

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AMENDMENT